

## NCEA POST-DOCTORAL PROJECT DESCRIPTION

<b>Project Number:</b>	NCEA-DC-QRMG-090208
<b>Division:</b>	NCEA-Washington Division
<b>Branch:</b>	Quantitative Risk Methods Group
<b>Geographical Location of position:</b>	Arlington, Virginia
<b>Project Area:</b>	<p><b>Toxicology/Biology with an emphasis on quantitative analysis and mathematical modeling</b></p> <p>This position is located in the Quantitative Risk Methods Group in the Washington Division of EPA's National Center for Environmental Assessment (NCEA), a part of the Office of Research and Development (ORD). The Quantitative Risk Methods Group develops and applies quantitative risk assessment methods and tools to support public health decisions, assesses risks from key environmental pollutants and polluted sites, and provides expert advice and training to EPA and others involved in environmental protection. The Group includes mathematical, biological, and environmental scientists from several disciplines, with an emphasis on quantitative analysis and mathematical modeling.</p>
<b>Brief Description of Project<sup>1</sup>:</b>	<p>The successful applicant will work in the fields of health and quantitative assessment and will be responsible for serving EPA as an expert in the integration of data in these areas. A specific area of focus in this position is detailed biological evaluation and analysis of quantitative data on the response of organisms to environmental stressors (especially toxic substances). As such, this work requires both development of expert evaluations of the quantitative biological data (including measurement methods and interpretation of test systems) as well as ability to apply mathematical modeling and statistical techniques to represent these data. Such modeling can address dose response relationships, comparative analysis of responses in humans and experimental test organisms, and critical evaluation of data supporting mechanistic hypotheses for effects of biological stressors. The broad scope of the position requires working on several projects concurrently and collaborating with statisticians, health, and ecological scientists in NCEA, other ORD Labs and Centers, and EPA's program and regional offices. The successful applicant will serve as a full member of scientific teams engaged in interdisciplinary analysis of problems in human health risk assessment. The overall objectives of the work are to advance the field of quantitative risk assessment and to ensure that EPA has scientifically sound quantitative information for its actions.</p>
<b>Major Scientific Area(s) of Emphasis:</b>	Human Health Risk Assessment

<b>Projected duration of appointment (2 or 3 years):</b>	Three years
<b>Educational requirements<sup>2</sup>:</b>	Ph.D. or other doctorate in Biology, Toxicology, Mathematical Statistics, Health Sciences or other related discipline
<b>Specialized training and/or experience preferred:</b>	<p>The successful applicant will have:</p> <p>a detailed knowledge of mathematics and statistics with an understanding of the relevant biological sciences sufficient to enable development of sophisticated, non-standard quantitative analyses of biological data;</p> <p>OR</p> <p>a detailed knowledge of relevant biological sciences with an understanding of mathematical statistics sufficient to enable critical reading and evaluation of biological studies that will be applied in statistical analyses and math modeling.</p>
<b>Relocation Expense Authorized?</b>	Relocation expenses will not be paid.